a.

2013 Iatt Lake Vegetation Control Plan

LDWF, Inland Fisheries

Located in Grant Parish
Map located in Appendix I

1. Waterbody type – Impounded swamp
2. Age and condition of control structure – Original dam was finished in 1956. The spillway crest was raised from 80 feet MSL to 83 feet MSL in 1966.

   The dam is fulfilling its intended purpose as per Louisiana Department of Transportation and Development (DOTD) Dam Inspection Report dated 10-29-2009.
   The northern drawdown gate in the spillway wall is inoperable and is to be repaired. The protective pipe sleeve for the southern drawdown gate stem is broken/missing and is to be reinstalled.
   There is displacement and cracking in the concrete training walls that are to be monitored and if necessary, repaired.
   Warning signs and buoys are to be placed across the approach to the spillway.
   Small trees and brush growing on the upstream slope in the water are to be cut or removed.
   The grass is to be mowed prior to inspection to allow thorough inspection of the embankment surface.

3. Type of control structure – The drawdown structure is incorporated into the spillway
   2 (two) gates - 7'x 5' each
   Dam height is 36 feet. Structural height is 36 feet.
   Hydraulic height is 30 feet.
   Maximum discharge is 12,128 cubic feet per second.
   Maximum storage is 167,000 acre-feet.
   Normal storage is 31,000 acre-feet.
   Surface area is 7,100 acres.
   Drainage area is 242 square miles

4. Water level range (MSL)- 83 MSL
5. Surface area at pool elevation – 7,100 acres
6. Average depth – 6' Avg ; 19' Max
7. Watershed ratio – 21.5 : 1
8. Drawdown potential of structure – the lake has been drawn down 9 feet in the past, and previous drawdowns have been at a rate of 3 or 4 inches per day.
9. Waterbody Board or Lake Commission - INACTIVE
   - Legislative Act 858 of 1981 transferred the Iatt Lake State Game and Fish Preserve to the Louisiana Department of Wildlife and Fisheries (LDWF).
   - Act 728 of 1982 provides for LDWF to assume direct responsibility for certain aspects of the management of Iatt Lake if the governing authority of the parish abolishes the locally appointed "lake commission".
   - The Grant Parish Police Jury (GPPJ) passed a resolution on June 1987 requesting that the Louisiana Department of Wildlife and Fisheries (LDWF) assume the management of Iatt Lake.
   - On July 17, 1987 the Grant Parish Police Jury abolished the Iatt Water Conservation board and requested the LDWF to take over management of Iatt Lake.

Primary contact information-Grant Parish Police Jury
200 Main Street
Colfax, La. 71417
318-627-3157

Procedure for spillway openings to conduct drawdowns – LDWF management recommendations will be presented to the GPPJ before being enacted. Written requests for opening the water control structure for drawdowns are sent from LDWF to LDOTD.

Drawdown History

DATE	PURPOSE	DEPTH BELOW POOL	GATES OPENED	GATES CLOSED	NOTES
Fall 1961	Dam Maintenance	To main channel	Fall	Fall 1962	Added a 3' cap to the spillway
Fall 1966	Dam Maintenance	5'	Fall		Dam maintenance
1968	Weed Control	7'	Oct 15	Jan 15,1969	
1972	Weed Control		Oct 20	Jan 20,1973	
1976	Weed Control		Fall	Feb 1,1977	
1980	Weed Control	Scheduled for March, but cancelled due to public opposition			
1981	Weed Control	8'	Aug 15	Jan 15,1982	
1987	Weed Control	8'	Aug 7	Jan 1988	
1990	Weed Control Boat Ramp Construction	8'	Sept 17	Unsuccessful due to rainfall	
July '93	Weed Control	8'	July 12	Jan 1994	
June '97	Weed Control	8'	June 16	Nov 1, 1997	
Aug '00	Weed Control	5'	Aug	Jan 2001	
Aug '02	Weed Control	8'	Aug 20	Unsuccessful due to heavy rainfall	
2003	Weed Control	5'	Fall	Cancelled due to Senate Resolution	
June '04	Weed Control Prep for TGC Stocking	8'	June 14	Oct 25, 2004	Closed to Fishing
May '08	Weed Control Prep for TGC Stocking	8'	May 12	Oct 2008	Closed to Fishing

What significant stakeholders use the lake?
The lake is utilized by recreational fishermen and duck hunters. Numerous homes and camps are located along the shoreline.

What are their needs and concerns? What is the history of aquatic vegetation complaints?
Vegetation problems have been chronic since the lake was created due to extremely shallow water and extensive cypress and tupelo tree growth.

Have there been any controversial issues on the lake?
I am not aware of any issues other than nuisance aquatic vegetation that occurs each summer

and fall. Periodic drawdowns for vegetation control always generate complaints. Some people are in favor of the drawdown and others are against it. In most cases, duck hunters are against the drawdown because it adversely affects the duck hunting.

Aquatic Vegetation Status:

The 2009 triploid grass carp stocking seems to have eliminated the hydrilla. The 2010 and 2011 vegetation surveys did not record the presence of hydrilla. Prior to the 2008 drawdown and the 2009 TGC stocking, hydrilla covered approximately 3000 acres in the southern half of the lake.

The presence of giant salvinia was confirmed in the lake on December 3, 2012. It was discovered by aquatic spray crews on the north end of the lake in the Hog Island area. A reliable estimate of acreage was unavailable at that time. Giant was difficult to locate as it was mixed with common salvinia. Acreage was estimated at less than 10 acres. It is likely to cause serious problems in the near future.

Problem vegetation in 2013 is expected to be similar to past years. American lotus will likely cause seasonal problems from late summer until fall dieback. Coverage will be approximately 1500 acres. Submerged native vegetation, primarily fanwort and bladderwort, restrict access in most of the northern half of the lake during the summer and fall. Coverage will be approximately 3000 acres. Hydrilla has not returned to the lake since the TGC stocking in 2009. Due to mild winters common salvinia coverage could expand to previous levels of 2000 acres. Giant salvinia was discovered in 2012 and is likely to become more prevalent in the near future. If giant salvinia responds in Iatt like it has in other central Louisiana lakes it will displace common salvinia. Coverage in excess of 3000 acres is possible within several years. Alligator weed and water hyacinth acreage should be similar to past years and coverage should be less than 200 acres.

Limitations:

- Extensive shallow water and 80% of the surface area covered with cypress and tupelo timber limits foliar herbicide application. A large watershed creates conditions where extensive water level fluctuations are common, sometimes in excess of 6 feet. This limits the use of herbicides that are susceptible to water movement and dilution.

- There is a need to acquire a waiver to spray 2,4,- D between March 15 and September 15 each year.

Past Control Measures:

Past control measures have included numerous drawdowns. The drawdown specifics are listed in the table above. Triploid grass carp have been stocked for hydrilla control, and emergent vegetation is sprayed annually. Giant salvinia was discovered on Iatt in December of 2012. There were no mats of pure giant salvinia found, but a small amount was scattered throughout mats of common salvinia. A reliable estimate of acreage was difficult to determine however aquatic technicians concentrated foliar herbicide efforts in the area in which it was discovered. A total of 6 acres of giant salvinia were sprayed in

2012. The specifics of aquatic plant control measures are listed in the table below.

Herbicides have been applied at the following rates:

2,4-D (Platoon): Used at a rate of 0.50 gallons per acre to treat water hyacinth and American lotus.

Glyphosate (Aquamaster, Aquastar, etc.): Used at a rate of 0.75 gallons per acre to treat alligator weed, water hyacinth, American lotus, and giant and common salvinia during the active growing period.
Diquat (Reward, Knockout): Used at a rate of 0.75 gallons per acre to treat alligator weed, water hyacinth, and giant and common salvinia during the slower growing period or winter months.

Surfactant is added at a rate of 1:4 (surfactant: herbicide) for all herbicides.

History of Triploid Grass Carp Stocking

GRASS CARP	4/6/2005	PHASE II FINGERLINGS	7,495
GRASS CARP	4/6/2005	PHASE II FINGERLINGS	25 *
GRASS CARP	4/6/2005	PHASE II FINGERLINGS	15 *
GRASS CARP	3/1/2007	1 YEAR OLD	24 *
GRASS CARP	2/5/2009	PHASE II FINGERLINGS	10,650
GRASS CARP	2/19/2009	PHASE II FINGERLINGS	10,650

* Denotes fish that were tagged as part of a TGC movement study.

Recent plant control efforts included a 2008 drawdown to reduce the biomass of submerged vegetation, primarily hydrilla. This was followed by the 2009 stocking of 21,300 triploid grass carp. The carp were stocked to reduce the regrowth and return of the hydrilla following the drawdown. This vegetation control strategy has provided excellent results. The 2010 and 2011 vegetation surveys found no hydrilla in the lake. Periodic complaints primarily concerning boating access have been addressed by aquatic vegetation spray crews. The majority of the complaints have been caused by American lotus. Spray crews used approved aquatic herbicides at the application rates listed above. Common salvinia coverage increased to approximately 3000 acres in the fall of 2009. The coverage was reduced to less than 100 acres by severe freezing in the winter of 2010/2011.

Past Aquatic Vegetation Control Efforts

Year	Acres	Vegetation
2005	5	Water Hyacinth
	65	White Water Lily
2006	205	American Lotus
	2	Parrot Feather
	118	Water Hyacinth
	14	White Water Lily
2007	14	Common Salvinia
	222	American Lotus
	45	Water Hyacinth
	1	Alligator Weed
	71	White Water Lilly
	3	Water Shield
2008	10	American Lotus
	69	Common Salvinia
	1	Giant Salvinia (?)
	18	Water Hyacinth
	10	Water Lily
2009	633	American Lotus
	223	Common Salvinia
	1	Water Hyacinth
2010	6	Water Hyacinth
	10	Common Salvinia
	110	American Lotus
2011	1	Alligator Weed
	45	American Lotus
	3	Common Salvinia
	11	Water Hyacinth
	7	White Water Lily
	1	Fanwort
2012	22	Alligator Weed
	253	American Lotus
	405	Common Salvinia
	174	Water Hyacinth
	84	Water Shield/Water Lily
	6	Giant Salvinia

Recommendations:

Recommendations for 2013 include the following:

Annual surveys are scheduled to document aquatic vegetation coverage (type maps). These surveys will be conducted in July or August. Aquatic technicians will also report significant changes in the status of aquatic vegetation following days of spraying activity.

Due to the discovery of giant salvinia, additional measures will be utilized. In addition to the annual summer vegetation survey, technicians will make monthly inspections in the Hog Island area to document the presence and growth of giant salvinia. Spray efforts will concentrate on giant salvinia utilizing the herbicide mixture described below.

LDWF spray crews will continue foliar spraying of emergent vegetation 4 or 5 days per month with glyphosate or diquat and an approved surfactant. These herbicides will be applied at the rate of 0.75 gallons per acre with the surfactant applied at 0.25 gallons per acre. Water hyacinth will be controlled with 2,4-D at a rate of 0.5 gal/acre. Alligator weed will be treated with imazapyr (0.5 gal/acre) in undeveloped areas and with Clearcast (0.5 gal/acre) near homes and developed shorelines. A diquat/glyphosate mix will be applied to common and giant salvinia at a rate of 0.75 gal/acre glyphosate, 0.25 gal/acre diquat, 0.25 gal/acre Aqua King Max surfactant, and 8 oz/acre of Thoroughbred surfactant.

Appendix I - Map of Iatt Lake

Appendix II

Iatt Lake Control Structure and Spillway

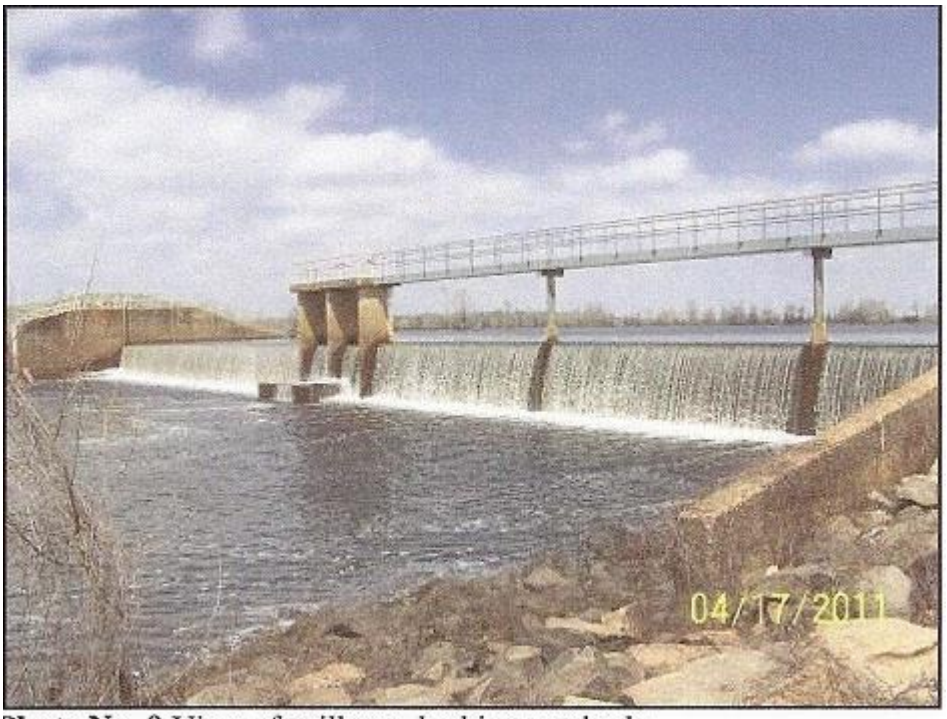


Photo No. 9 View of spillway, looking northerly

Typemap
Iatt Lake

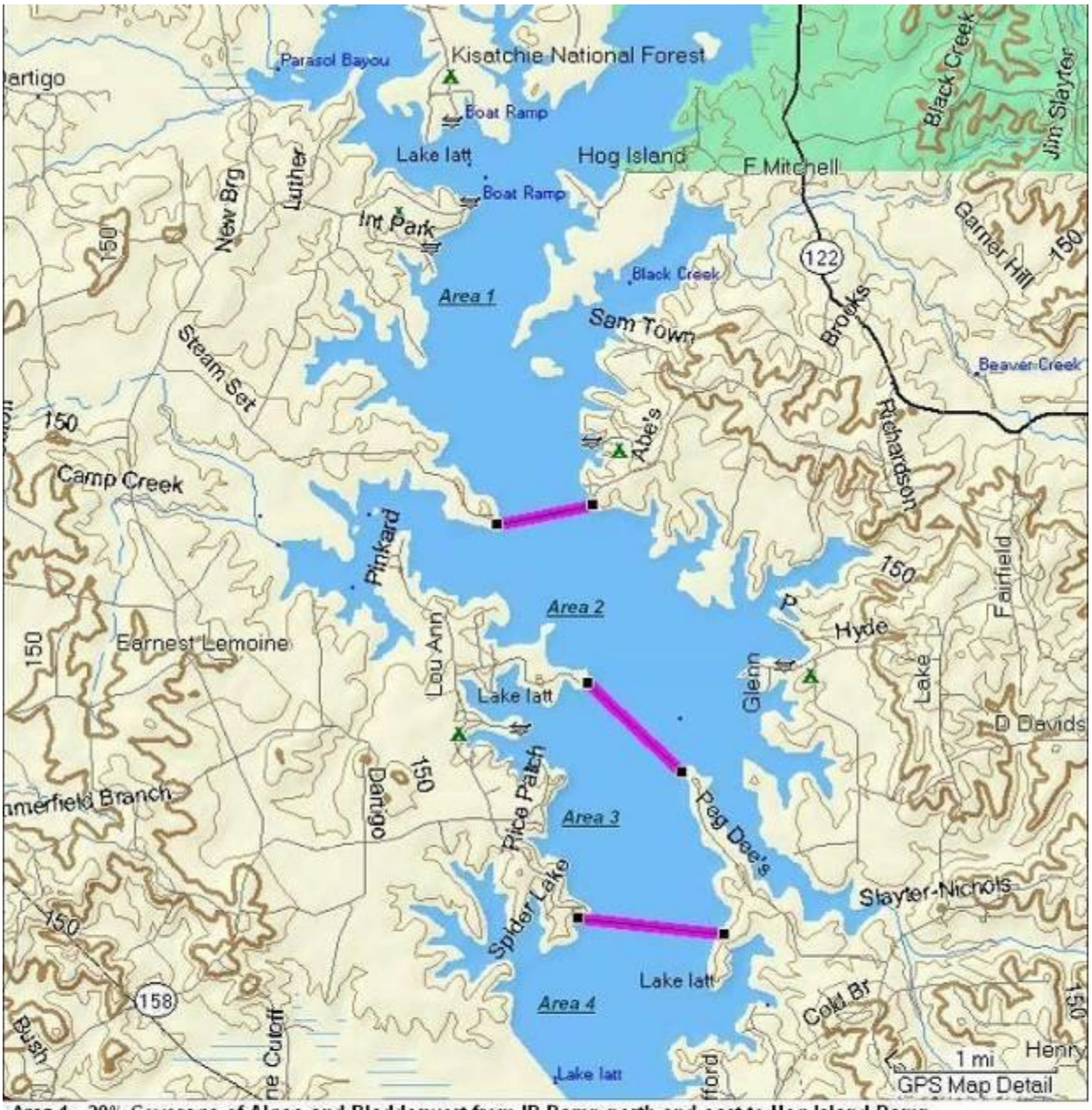
August 2010

Iatt Lake , northeast of Colfax in Grant Parish, is a 7100 acre lake with a maximum depth of 19 feet and averages about 6 feet deep. It is a Swamp type impoundment with 80% of the surface covered with cypress and tupelo timber.

The lake was drawn down September 2004 through January 2005 in preparation for the introduction of triploid grass carp (TGC). In April 2005, approximately 7500 TGC were stocked into the lake for aquatic vegetation control. Of this stocking, 40 were implanted with transmitters so their movement could be monitored to see if any left the lake. The battery life of these transmitters was over in October 2007. In March 2007 an additional 24 tagged grass carp were stocked into the lake to continue the study. After the study, the lake was again drawn down in preparation of a larger TGC stocking May through September 2008. On February 5th and 19th, 2009 the lake was stocked with a total of 21,300 TGC for aquatic vegetation control.

The lake was surveyed for the presence of aquatic vegetation on July 1, 2010. The water was clear.

As in past years, the southern fourth of the lake had 75% coverage of American Lotus. Bladderwort, Duckweed, Hydrilla and Algae were present. The middle half of the lake had 75% American Lotus and Water Lily (<5%) present along the east bank. The further north we traveled however there was only a fringe of Water Hyacinth along the east bank and Duckweed. Bladderwort, Common Salvinia and Algae were scattered. The northern part of the lake had 20% coverage from International Paper Ramp to Hog Island Ramp of Algae and Bladderwort. Common Salvinia and Duckweed were present.



Area 1 - 20% Coverage of Algae and Bladderwort from IP Ramp north and east to Hog Island Ramp. Duckweed and Common Salvinia scattered.

Area 2 - Fringe covering of Water Hyacinth along east bank around Hyde's Landing. Common Salvinia, Duckweed, Bladderwort and Algae scattered through out area.

Area 3 - 75% American Lotus coverage along east bank with a fringe area of White Water Lillies (<5%). Also present were Bladdderwort and Duckweed.

Area 4 - 75% American Lotus coverage. Spider Lake area had 65% American Lotus coverage with Algae, Duckweed, Bladderwort and Hydrilla present.